ABSTRACT

The present invention is a silicon single crystal grown by CZ method, wherein Cu precipitates do not exist inside the silicon single crystal, a silicon wafer produced from the silicon single crystal, wherein Cu precipitates do not exist on a surface of and inside the wafer, and an apparatus for producing a silicon single crystal according to CZ method, wherein Cu concentration in a component made of quartz to be used in a part in which a temperature in a furnace for single crystal growth is 1000 °C or more is 1 ppb or less, and Cu concentration in a component made of quartz to be used in a part in which a temperature in a furnace for single crystal growth is less than 1000 °C is 10 ppb or less, and a method for producing a silicon single crystal by using the producing apparatus. Thereby, there are provided a silicon single crystal and a silicon wafer which have extremely few crystal defects and have high quality and high yield, a producing apparatus therefor, and a producing method therefor.